

REMARKS

Upon entry of the claim amendments, Claims 1-6 will be all the claims pending in the application.

Amended Claim 1 is supported by the description at, for example, the paragraph bridging pages 6 and 7 and Table 2 at page 9 of the specification.

New Claim 3 is supported by the description at, for example, the first paragraph at page 3 of the specification.

New Claim 4 is supported by the description at, for example, the last full paragraph at page 3 of the specification.

New Claim 5 is supported by the description at, for example, the second full paragraph at page 4 of the specification.

New Claim 6 is supported by the description at, for example, the first full paragraph at page 7 of the specification.

No new matter has been added.

I. RESPONSE TO RESTRICTION REQUIREMENT

As requested by the examiner at Section Nos. 1-4 on page 2 of the Office Action, Applicant affirms the election of Group I, Claim 1, drawn to a method.

New Claims 3-6 should be included within elected Group I.

II. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 6 at pages 3-5 of the Office Action, Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,165,564 (“Crast”) in view of U.S. Patent Application Publication No. 2002/0016226 (“Jin”), further in view of U.S. Patent No. 6,319,983 (“Lokai”), and further in view of U.S. Patent No. 5,300,325 (“Nealon”).

Applicant respectfully traverses.

Claim 1 is directed to a method for preparing a golf ball. The method of Claim 1 comprises coating a layer of a primer composition comprising an aqueous resin having UV-curable functional groups in a molecule and a crosslinker on the cover surface of a golf ball. The method of Claim 1 also comprises applying a UV-curable paint onto the layer. The method of Claim 1 further comprises irradiating the layers with UV radiation, thereby permitting both of the primer composition layer and the UV-curable paint to cure at the same time. According to the method of Claim 1, the primer composition layer is not irradiated with UV radiation prior to having the UV-curable paint applied thereon.

In the present rejection, the examiner has used Crast as the primary reference. However, as stated at page 1 of the specification, Crast leaves room for improvement in terms of the adhesion between a coating and a golf ball surface. Indeed, although Crast broadly teaches a primer/basecoat onto which a UV-curable coating may be applied, the examiner acknowledges at page 3 of the Office Action that Crast does not specifically teach a golf ball having the claimed primer composition, comprising an aqueous resin having UV-curable functional groups in a molecule and a crosslinker, between a cover surface of the golf ball and the UV-curable coating.

The examiner attempts to cure the deficiency of Crast by reference to Jin.

Applicant respectfully disagrees with the examiner's proposed combination of art, for at least the following reasons.

First, combining the teachings of Crast and Jin is based on improper hindsight reasoning. In particular, one of ordinary skill in the art, armed with the teachings of Crast, would have had no motivation to employ the UV curable coating of Jin as a primer between a cover surface of a golf ball and the UV-curable coating of Crast.

In this regard, the examiner asserts that the motivation to combine the teachings of Crast and Jin would have been to provide desired enhanced adhesion to an ionomer coating. However, the teachings of Crast provide no indication that enhanced adhesion is needed between the UV-curable coating of Crast and an ionomer cover. In fact, the very opposite is true. At column 4, lines 11-12, Crast teaches that its UV-curable coating may be applied to ionomeric covers. The

only teaching or suggestion that the coatings of Crast may be deficient appears at page 1 of Applicants' disclosure. Accordingly, a person of ordinary skill at the time the present application was filed may have considered the teachings of Crast and Jin to be cumulative of each other.

Further, Jin does not teach the use of its UV-curable coating as a primer. At paragraph [0022], Jin identifies its UV-curable coating as a topcoat. Likewise, Jin's claims recite that its coating is an outer coating or a top coat. See Claims 1, 3, and 9. Thus, in addition to there being no motivation to combine the teachings of Crast with the teachings of Jin for the reasons mentioned above, the teachings of Crast and Jin do not provide a reasonable expectation of success that the UV-curable coating of Jin could serve as a primer delivering adequate adhesion between the UV-curable coating of Crast and the cover surface of a golf ball. For example, there is no teaching in either Crast or Jin of what the adhesion interface might be like between the UV-curable coating of Jin and the UV-curable coating of Crast.

Second, even if the teachings of Crast and Jin would have been combined by one of ordinary skill in the art in the manner proposed by the examiner, the result would not have led to the presently claimed method. The method of Claim 1 comprises coating a layer of a primer composition comprising *an aqueous resin* having UV-curable functional groups in a molecule and a crosslinker on the cover surface of a golf ball. In contrast, combining Crast and Jin in the manner proposed by the examiner would lead to a solvent-free primer between the UV-curable coating of Crast and the cover surface of a golf ball.

The examiner acknowledges that Jin teaches a solvent-free coating and that Jin fails to teach that its coating can be formulated as a water-based composition. The examiner attempts to cure this deficiency in Jin by reference to Lokai.

Jin, however, clearly "teaches away" from the proposed combination of Jin and Lokai. In this regard, a "teaches away" argument is most persuasive when a reference(s) criticizes, discredits, or otherwise discourages the solution claimed. *See, In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). Here, Jin criticizes, discredits, or otherwise

discourages modifying its solvent-free coating by reformulating it as a water-based composition. First, at paragraphs [0013] and [0036], Jin discourages such a reformulation by making clear that the advantageous effects and benefits of its invention are tied to the coating being “a nearly 100% solid system” with any remainder being solvent. Second, at paragraph [0007], Jin criticizes water-borne coatings as suffering from the drawback of a long curing time. In short, a person of ordinary skill in the art would not have been motivated to combine Jin and Lokai in the manner proposed by the examiner.

For at least the reasons above, Applicant requests the examiner to reconsider and withdraw the present §103 rejection of Claim 1.

The patentability of the pending claims is further emphasized by noting the following.

In the method of Claim 1, a layer of a primer composition is coated on the cover surface of a golf ball. After that, a UV-curable paint is applied onto the primer composition layer. The primer composition layer is not irradiated with UV radiation prior to having the UV-curable paint applied thereon. After the UV-curable paint is applied onto the primer composition layer, both of the layers (*i.e.*, the primer composition layer and the UV-curable paint) are able to cure at the same time by irradiating the layers with UV radiation. As a result, by providing the claimed method, an abrasion resistance of the ball surface can be improved, and the bond strength between the coating and the cover surface can be enhanced.

In contrast, Crast teaches a method for preparing a golf ball having a polyurethane top coating formed from UV-curable coating. Crast is discussed at page 1 of the specification.

Crast fails to teach that a primer composition comprises an aqueous resin having UV-curable functional group in a molecule and a crosslinker, as acknowledged by the examiner. Since the method of Claim 1 recites that a primer layer is not irradiated by UV radiation before applying a UV-curable paint onto the layer, there is a sufficient difference between the claimed method and Crast. At the very least, Crast fails to teach that a primer layer is not cured by UV radiation before forming the polyurethane top coating. Indeed, Crast may be said to correspond to Comparative Example 1 or 2 of the present specification, because the primer composition of

Crast does not have an aqueous resin having a UV-curable functional group in a molecule and a crosslinker, and also Crast does not suggest the effects that result from both of the primer composition and the UV-curable paint being cured at the same time.

Therefore, Crast teaches away from the claimed method.

Each of the other references of Jin, Lokai, Nealon is silent in teaching the feature of the claimed method. The cited secondary references do not disclose or suggest the claimed method satisfying all of the steps recited in Claim 1.

Accordingly, the applied combination of art fails to disclose or teach the present method and the feature thereof.

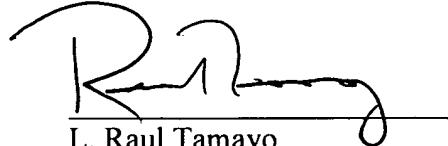
Reconsideration and withdrawal of the present §103 rejection is requested.

III. CONCLUSION

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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